

**FROM THE DESK OF:**

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To: Susan Hanson, Bill Bacon, Daniel Stone, Kelly Wright, Peter Orris MD, MPH  
Via email.

RE: Final Exponent Fort Hall Environmental Health Assessment Study (Submitted  
December 11, 2015)

The above report was reviewed with regard to the analytical phase of the Fort Hall Indian Reservation Community Health Assessment. As you know, the report was divided into four sections – comments will be made within each section.

1. Cancer incidence: The study assessed the cancer experience of the Fort Hall Reservation population from potential FMC related exposure from 1949 through 2001. These emissions likely included the carcinogens Chromium VI, cadmium, arsenic, lead, nickel, beryllium, and radionuclides. Originally, the specific aims were to focus on individual inhabitants of the community in order to “construct lifetime exposure histories” based on exhaustive record searches and interviews; this did not appear to have been performed. Question whether local data bases were utilized in this study (which was concluded as a negative study). All tables should have confidence intervals. It should be noted that more detail is provided in Table 10 in the final copy, as opposed to the draft copy.
2. Mortality from all causes: Again, it does not appear that there was an exhaustive use of local data bases. As with cancer incidence, population groups (counties), rather than individual analysis were studied. Again all tables should have confidence intervals. Age adjusted mortality appears to exhibit higher rates in Fort Hall counties as opposed to other Idaho counties (Table 8) this never was really investigated (other than to discuss a decrease in rates from 1990-2005 as compared to 2006-2013). Table 8 can be interpreted as being caused by a latency period of disease progression caused by an environmental insult during the FMC related exposure.

3. Sentinel Health Event: As discussed in previous conference calls (April 29, 2015; June 26, 2015), this section was inadequately studied and reported. None of the Sentinel Health Events (SHE) as outlined in the Work Plan were investigated and only one (Phossy Jaw) was even mentioned in the report. Rare diseases (primarily connective tissue diseases) were superficially mentioned – however, rare diseases do not comprise SHE. No data was supplied; apparently no data bases were even investigated. The explanation given (“lack of individual level data”) is not a reason that a comprehensive investigation in this area could not be performed. As stated in the June 26, 2015 (page 10) conference call, the conclusion should have read that the Sentinel Health Events study could not be done rather than “no sentinel cancer events were observed.”
4. Childhood Asthma: No analysis or data were reported for this section. Thus, no conclusions could be determined. As stated in several previous meetings, having a local medical practitioner embedded in the team would have been invaluable for the overall process.

In conclusion, it is my opinion that the Exponent Fort Hall Environmental Health Assessment Study fell short of the goals of the original work plan-especially in the sections of Sentinel Health Events and Childhood Asthma. I would be happy to discuss further at anytime.

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